DOCUMENT RESUME

ED 117 999 HE 006 984

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TITLE Attrition at New College: A Preliminary and Exploratory Study. Report No. 16.
INSTITUTION Hofstra Univ., Hempstead, N.Y. New Coll. Educational Research Office.
REPORT NO NCERO-16
PUB DATE Jun 75
NOTE 14p.

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage
DESCRIPTORS *College Students; Continuation Students; Dropout Attitudes; *Dropout Characteristics; Dropout Prevention; *Dropout Research; Dropouts; *Higher Education; *Student Attitudes; Student Behavior; Student Research

ABSTRACT

This study represents an attempt to identify variables which might differentiate continuing students from withdrawn students at New College of Hofstra University and, consequently, variables that might be worthwhile monitoring in the future. A total of 55 students who had withdrawn over a period of three semesters (September 1973 to January 1975) were studied. Where possible, a comparative analysis of similar data for comparable continuing students was performed. The data is presented in four parts: (1) an analysis of major area of study, semester hours of work attempted and completed, and SAT and High School decile data for withdrawn students; (2) a comparison of continuing and withdrawn students who entered New College in 1972 and 1973; (3) establishment of a multiple regression equation; and (4) an analysis of exit questionnaire data. The report recognizes the speculative nature of the conclusions because of the small size of the sample, but suggests a number of variables for continuing investigation. (JMF)

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ATTRITION AT NEW COLLEGE: A PRELIMINARY AND EXPLORATORY STUDY

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NCERO Report #16
June, 1975

HE006944

INTRODUCTION

The American Council on Education has reported that about half the students who entered college as freshmen in 1961 and 1966 earned degrees in four years and by 1971, 80% of the 1961 class and 60% of the 1966 class had earned degrees (Todays Education, 1975). Hofstra University has reported its persistence rate for 1966 freshmen at 58%, or approximately the same as the national average (McDermott and Lichtenstein, 1974). There is reason to believe that "...the long term trend over three decades at least has been that though enrollments have soared both in numbers and as percentage of population, the attrition rate has remained approximately constant over this total period." (Huber, 1971). These comments suggest that the problem of attrition has not been eliminated.

Although a comprehensive review of the literature on attrition is not feasible here, there exist a number of thorough sources for such information (Summerskill, 1962; Tinto and Cullen, 1973). Generally speaking, the research on college dropouts has been discouraging. The research does suggest that volunatry withdrawal from college is multi-causal and complex; "...there is rarely a single reason for a student to drop out" (McDermott, 1975, p.2). Among the variables that have been shown to have some relationship to student attrition are "...academic aptititude, high school grades, motivation, finances of the students, and the social and academic match between the student and the institution" (McDermott, 1975, p.2).

While it is often possible to look at many of the above mentioned variables in relation to withdrawal, it is often difficult to assess the real reasons why a student may leave school. Questionnaires and exit interviews have been used both at New College of Hofstra and other institutions. While this technique is sometimes helpful, anyone involved in the evaluation of such questionnaires or who conducts such interviews is aware of the reluctance on the part of many, if not most, students to state their real reasons. Quite typically the student expresses no particular dissatisfaction with the institution, his instructors, or the curriculum, but states that he is leaving for "personal reasons", the specific nature of which is left unidentified.

Among the more recent and relatively successful attempts to identify significant variables in college drop out is a study by Blanchfield (1972). Blanchfield looked at both precollege and college environmental variables. This author was able to discriminate between dropouts and continuing students at Syracuse University in terms of such variables as high school rank, financial aid, and a social conciousness score.

This present study represents an attempt to identify variables which might differentiate continuing students from withdrawn students at New College of Hofstra University and consequently, variables that might be worthwhile monitoring in the future.

PROCEDURES

The 55 students comprising the sample of drop outs for this study, withdrew from New College sometime between September, 1973, and January, 1975. These students began their college careers sometime between 1969 and 1973. Included in the sample of drop outs are 42 students who began as freshmen at New College and 13 who transferred into New College. Since entrance testing at New College did not begin until the Fall, 1973, the only data available on students who entered prior to that time was the information included on the students' transcripts and in their admissions dockets. For students who entered New College in 1973, additional test data including a personality inventory, were also available. The following report presents data in four different parts: (1) an analysis of major area of study, semester hours of work attempted and completed, and SAT and High School decile data for withdrawn students; (2) a comparison of continuing and withdrawn students who entered New College in 1972 and 1973; (3) establishment of a multiple regression equation; and (4) an analysis of exit questionnaire data.

RESULTS

Profile of New College Dropouts

Table 1 below provides a breakdown of major Area of study by freshmen and transfer students who have dropped out sometime between September 1973 and January 1975.

TABLE 1

Breakdown by Concentration Area of Freshmen and Transfer Students Who Withdrew

AREA	Freshmen	Transfer	Both
Humanities	19	7	26
Social Science	15	3	18
Natural Science	6	1	7
Unknown	2	2	4
TOTAL	42	13	55

Most of the drop outs concentrated in either the Humanities or the Social Sciences at New College, with the highest number of drop outs in the Humanities. Of the four major Areas of study available to the New College student (Humanities, Social Science, Natural Science, and Liberal Arts) the majority of all students are either in the Humanities or Social Sciences,

with approximately 50% of the students identifying themselves as Social Science students and approximately 30% as Humanities. Among the withdrawn students we find that 47% are Humanities and 33% are Social Science. This may possibly suggest that Humanities students experience greater dissatisfaction and are more likely to drop out, however there is no method of confirming such a hypothesis from the available data.

Semester hours completed. The average number of credits completed by the dropouts each semester was 13.27. This is approximately the same average number of credits completed per semester by all New College students. However, considering just the last semester enrolled prior to dropping out, we find that out of a mean of 15.93 s.h. for which registered, the dropout freshmen completed only 11.8 and the dropout transfers only 8.15 s.h. Table 2 contains a breakdown by major Area of the number of completed credits in the last semester and the average number of completed credits per semester for the withdrawn students.

TABLE 2

Breakdown by Concentration Area and Original Status of Completed Credits in Last Semester and Mean Number of Completed Credits Each Semester for Students Who Have Withdrawn

AREA & STATUS	CREDITS LAST SEMESTER	MEAN CREDITS COMPLETED
FRESHMEN		
Humanities (N = 19)	12.5	13.1
Social Sciences (N = 15)	11.5	14.3
Natural Sciences (N=6)	10.5	13.0
Unknown (N = 2)	12.0	14.0
Total for Freshmen (N = 42)	11.8	13.6
TRANSFER		
Humanities (N = 7)	9.0	13.4
Social Sciences (N = 3)	4.0	10.0
Natural Sciences (N = 2)	8.2	15.0
Total for Transfer (N = 12)	8.15	12.4
GRAND TOTALS (N = 54)	11.37	13.27

The data in Table 2 suggest that students who withdraw or who do not plan to return the following semester tend to be less likely to complete all of their credits in that last semester than they did in previous semesters. This pattern is particularly noticeable among transfer students.

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SAT and High School deciles. A total of 21 of the 55 withdrawn students had accessible Math and Verbal SAT scores and High School deciles and these are reported in Table 3.

TABLE 3

The Mean Verbal and Math SAT scores and High School Rank for Withdrawn Students by Area

AREA	VERBAL SAT	MATH SAT	RANK
Humanities (N= 10)	546 (s=96.7)	518 (s=82.8)	2.8 (s=1.5)
Social Science (N= 6)	523 (s=76.1)	590 (s=72.8)	3.0 (s=1.68)
Natural Science (N=3)	623 (s=65.5)	607 (s=77.6)	3.0 (s=0.0)
Unknown (N= 2)	430 (s=10.0)	460 (s=20.0)	5.0 (s=0.0)
TOTAL (N= 21)	539	545	3.09

A further discussion of the information presented in Table 3 is taken up in the following section of this report and again in the discussion of the regression equation.

Comparison of Continuing with Withdrawn Students

Twenty one of the withdrawn students who entered as freshmen in the Fall 1972 or 1973 were chosen for comparison with a random sample of comparable continuing 1972 and 1973 encering freshmen. The two groups were compared on accumulative grade point average, credits completed, credits attempted, number of courses at units of Hofstra University other than New College, number of courses taken at New College, Verbal and Math SAT scores, and high school decile. Since the number of students was small and since the purpose of the study was exploratory in nature, the only procedure performed was multiple use of simple t tests for significant differences between the group means.

When performing multiple t tests, it is very likely that at least one of the variables will appear to be significant just by chance alone. The only variable shown to be significant (.05 level) was credits completed. However because of the chance occurence of significance, a more desired significance level would be .01. Using this .01 level, there were no significant variables. Table 4 contains a summary of all the above indicated comparisons.

TABLE 4

A Comparison Between Withdrawn and Continuing Students on Accumulative Average, Credits Attempted, Credits Completed, Number of Main Campus* Courses Attempted, Number of New College Courses Attempted, Verbal SAT (VSAT) and Math SAT (MSAT) and High School Rank

Variable	Withdrawn Students MEAN		Continuing Students MEAN	
Accumulative Average	2.97	(s=1.77)	3.14	(s=1.81)
Credits Completed	41.5	(s=15.06)**	53.1	(s=18.99)
Credits Attempted	47.76	(s=17.92)	58.48	(s=18.35)
# of Main Campus Courses	3.5	(s=2.35)	2.4	(s=1.04)
# of N.C. Courses	11.76	(s=5.21)	12.76	(s=4.53)
VSAT	542.4	(s=85.6)	590.6	(s=90.39)
MSAT	567.6	(s=86.6)	568.3	(s=98.12)
H.S. Rank	2.94	(s=1.39)	2.38	(s=1.63)

* Main Campus is a term used to refer to other units at Hofstra University
** Significant difference at .05 level

The completion ratio (dtermined by comparing the number of credits attempted with the number completed) for the withdrawn students was .87 while for their continuing counterparts it was .91, suggesting that the continuing students have a slightly greater tendency to complete courses than do non-continuing students. This difference is consistent with data presented in Table 2, i.e. the difference may be accounted for, in part, by the dropouts behavior in the final semester of his attendance.

In addition to the above comparisons, a subset of the students was chosen and compared with continuing students on OPI (Omnibus Personality Inventory) test results. The OPI is a personality inventory with 14 scales and one composite index. This instrument ostensibly measures characteristics related to performance in college (Heist and Yonge, 1968). Thirteen of the withdrawn students in the original sample had taken the OPI as entering freshmen in 1973. A random sample of continuing students with the same time of entry were selected for comparison. Once again a simple t test was used to test for significant differences. The two groups were compared on 13 of the 14 scales and the composite index.*

The only scales found to be significantly different (.05 level) for the two groups were the Complexity and Practical Outlook scales. (To account for the likelihood of significance when using multiple t tests, the alpha level should once again be .01. Using this alpha, no variable was found to be significant.) All comparisons for the OPI appear in Table 5.

* The fourteenth scale that was eliminated was the Response Bias Scale. This Scale indicates the response style of the student at the time of administration of the OPI and consequently was not considered a significant scale to study.

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Results (continued)

TABLE 5

Comparison of Withdrawn and Continuing 1973 Students on 13 scales and the Intellectual Disposition Category of the OPI

SCALE	WITHDRAWN STUDENTS		CONTININUING STUDENTS	
Thinking Introversion	55.39	(s= 4.6)	54.08	(s= 7.9)
Theoretical Orientation	49.62	(s= 10.9)	53.15	(s= 10.7)
Estheticism	55.00	(s= 8.62)	53.31	(s= 8.63)
Complexity*	62.00	(s= 9.72)	54.54	(s= 7.91)
Autonomy	61.46	(s= 4.03)	59.08	(s= 7.37)
Religious Orientation	59.08	(s= 6.74)	56.62	(s= 5.47)
Social Extroversion	41.62	(s= 9.17)	47.77	(s= 12.6)
Impulse Expression	58.46	(s= 11.8)	56.00	(s= 12.9)
Personal Integration	46.77	(s= 8.17)	49.46	(s= 9.35)
Anxiety Level	43.77	(s= 9.55)	49.00	(s= 11.9)
Altruism	50.23	(s= 9.05)	47.85	(s= 10.2)
Practical Outlook*	37.08	(s= 7.01)	43.15	(s= 7.23)
Masculinity - Femininity	45.08	(s= 9.33)	46.08	(s= 9.17)
Intellect Category	4.16	(s= 0.99)	4.23	(s= 1.09)

* Significant at .05 level.

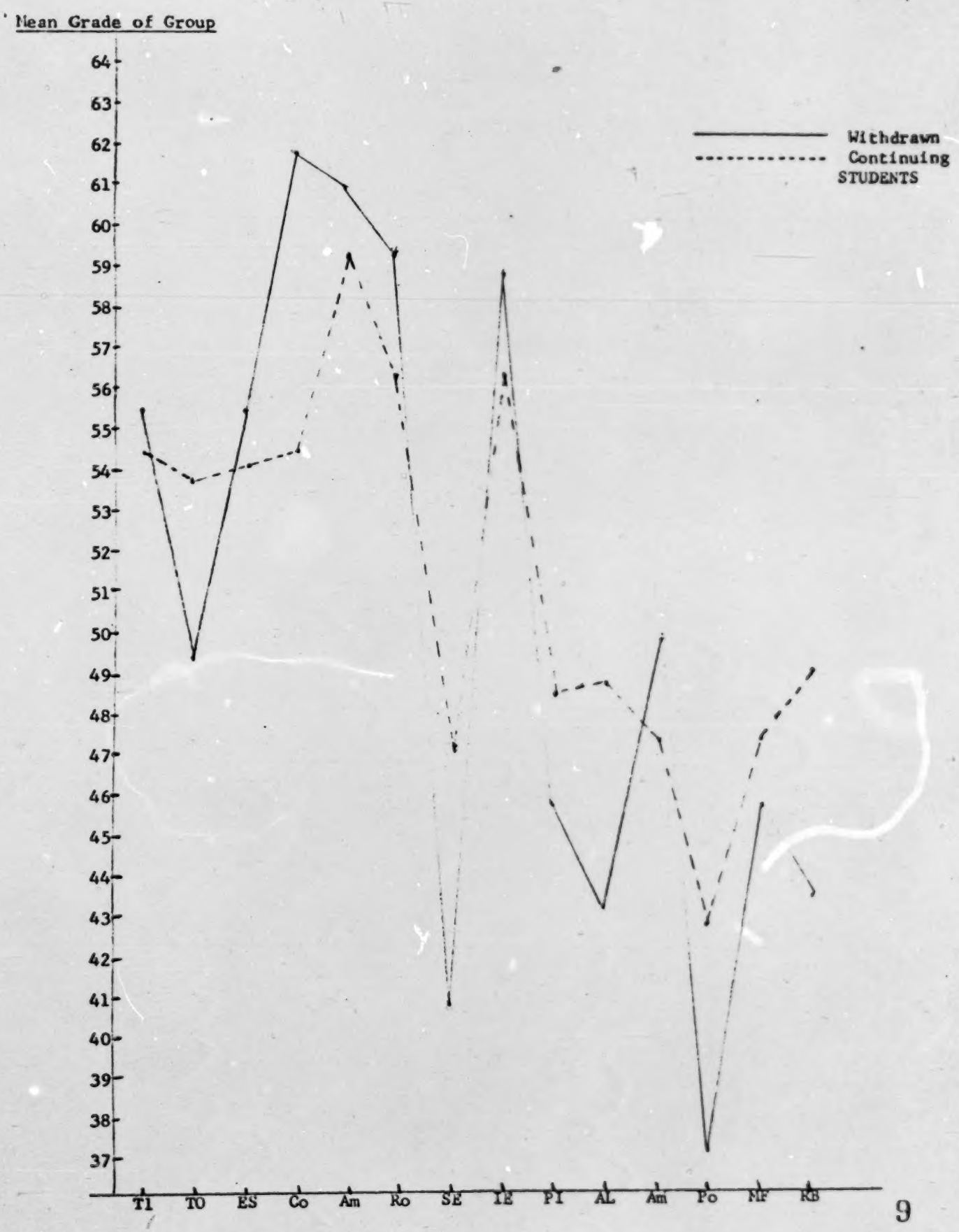
A further analysis of the comparison of withdrawn and continuing students appears in the graph laveled graph 1 on the following page.

By observing the graph one notices the greater variability in the dropout sample as one moves across the scales. Perhaps this indicates the dropouts have stronger, definite beliefs about their perceived personalities. Looking further one notice the dropouts scored one standard deviation above the national norms on the Complexity and Autonomy scales and one standard deviation below on the Practical Outlook scale. This may indicate a reater confidence in themselves and a desire to try new and complex things and a dislike for practical applications.

Formation of Multiple Regression Equation

Multiple regression equations have been developed many times for dropout studies. Although they have not proven to be useful as predictive tools, they are useful in a study such as this to determine some of the significant variables which might be worthy of further investigation. Therefore, an equation was developed using as the predictors thirteen scales of the OPI, SAT scores, high school decile, total accumulative grade point average (GPA), first semester accumulative average, percent of courses completed in all semesters, percent of courses completed in first semester (with letter grade evaluation), percent of courses taken at New College out of the total number of courses taken, and percent of completed courses with letter grade evaluation. In other words, all possible variables for which data existed for the withdrawn students were entered.

COMPARISON BETWEEN THE MEAN RESPONSES OF THE DROPOUT AND CONTINUING SAMPLE ON THE OPI SCALE



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The SAT and high school decile were included since they are traditional predictors of success. The accumulative averages and percent of courses completed along with percent of courses completed with a letter grade were included as additional indices of success. The first semester data has proven to be very useful in other studies (Blanchfield, 1971). Finally, the OPI scores were included since the characteristics measured are believed to be related to underachievement and eventual dropout (Roth, 1970).

Of the total of 26 students who were chosen for the OPI comparison, the other information was only available on 16 of the students. Therefore, the results below are based on comparing eight (8) withdrawn students to eight (8) continuing students.

Table 6 indicates the order of variables entered in the regression equation according to the percent of variance accounted for. The first variable entered stepwise into the equation was the percent of courses completed with a letter grade in the first semester. This variable accounted for 65% of the variability. The next 5 variables are personality scales from the OPI. Impulse Expression accounted for 17% of the variability, Social Extroversion 4%, and Anxiety Level 3%. The multiple regression coefficient at this point was .8942 with a standard error of estimate of .2699.

The figures discussed above are basedon an N of 16; consequently, the only purpose this analysis can serve is to suggest variables to study in the future.

TABLE 6

Variables Entered in Regression Equation
In Order of Their Entry

1 - Percent of courses in first semester with letter grades
2 - Impluse Expression (OPI)
3 - Social Extroversion (OPI)
4 - Anxiety Level (OPI)
5 - Personal Integration (OPI)
6 - Theoretical Orientation (OPI)
7 - Percent of courses completed with letter grade over all semesters
8 - Altruism (OPI)
9 - First semester accumulative average
10 - Estheticism (OPI)
11 - Percent of courses taken at New College
12 - Verbal SAT
13 - Introversion (OPI)
14 - Autonomy (OPI)

It is interesting to note here that of the first five variables listed, four of the scales from the OPI are included and that four scales are the scales from the OPI are included and that these four scales are the scales of the OPI which relate to personal and social adjustment. The suggestion is that personal adjustment may be an important consideration in the students eventual dropping out. This issue needs further study.

Analysis of Exit Questionnaire Data

Questionnaire data was available from two sources. First, a questionnaire was mailed to students who had withdrawn from New College after the first semester, 1973-74. Of the 24 questionnaires mailed, 10 were returned.

Results from this mailed questionnaire indicated that 3 of the 10 respondents had transferred to other schools. Six of the 10 respondents stated that they were not dissatisfied with New College, but left for health, financial or personal reasons. Half of the respondents (N=5) indicated that they disliked the Hempstead community. One student indicated that he left New College because of a desire to major in a discipline not available at the College, and another student indicated that he needed a more structured academic program than New College provided. Two of the 10 students indicated general dissatisfaction with the curriculum and program.

The second source of questionnaire data was gathered from the New College Exit Questionnaire which was given to each student who voluntarily withdrew from the program during an ongoing semester. Data from this questionnaire has been collected over the past three years. It should be noted that the information here is not available from students who withdraw by simply failing to return in a subsequent semester. Because of high variability in response rate to individual questions, and because of the inability to categorize some open-ended responses given, no attempt has been made to present these results in terms of percentages.

Results of the Exit Questionnaire indicate that the characteristics the withdrawn students found most attractive about the college were the curriculum, the calendar structure, small class size and personal relationship between faculty and students. On the other hand, a number of students stated that the lack of variety in course offerings was the least attractive aspect of New College.

When asked why they were leaving New College, "personal reasons" were given more than any other reason. Although it is often difficult to assess the exact nature of the "personal reason", such things as getting married, moving, and being needed at home were cited. Dissatisfaction with the curriculum was the second most often cited reason for leaving, with financial reasons the next most common explanation.

In terms of plans after leaving college, six students indicated that they intended to transfer to other schools and nine stated that they planned to work. Of 15 respondents to the Exit Questionnaire 10 indicated that they planned to complete their undergraduate education at some time in the future, 1 indicated no intention to complete the BA, and 4 were uncertain.

SUMMARY

The purpose of this study was to explore possible variables that might be related to student attrition at New Colleg. A total of 55 students who had withdrawn from New College over a period of three semesters (September 1973 to January 1975) were studied. Where possible, a comparative analysis of similar data for comparable continuing students was performed.

In summary, most of the withdrawn students had concentrated in either the Humanities or Social Science programs at New College, with the highest percentage of students withdrawing from the Humanities program. That these two areas are predominatly represented among the dropouts is not surprising since most New College students concentrate in one or the other of these two areas.

Students who withdraw from New College tend to complete a lower percentage of their attempted credits during their final semester than they do in previous semesters. Their completion ratio for their final semester prior to withdrawal is also lower than for their continuing counterparts. This phenomenon may suggest that students who do not plan to continue lose interest in their academic work or are less motivated in some other fashion; however, it is a "chicken or egg" question--do students fail to complete work in their final semester because they do not plan to return, or do they not return because of a failure to complete work resulting from a general loss of interest? In other words, the possible explanations may be complex, and need to be investigated further.

Although there were no significant differences between withdrawn and continuing students on the various scales of the OPI, the Complexity and Practical Outlook scales did show some difference. Also the pattern of scores on the OPI appears to be more variable for withdrawn students than continuing students. The exact meaning of these differences cannot be determined because of the small size of the sample and the lack of statistical significance of differences.

The multiple regression equation pointed to the importance of the student's first semester's work at New College. While no definitive conclusions can be drawn from the multiple regression equation, the following ideas are suggested: level of personal adjustment (as suggested by OPI scale scores) combined with performance during the first semester (completion of a high percentage of course work with letter grade evaluation) may be the most important variables in predicting whether a student will drop out of New College. It is interesting to note that GPA, SAT scores, high school decile, and personality characteristics related to intellectual disposition appear to be less important in predicting eventual withdrawal. These conclusions are highly speculative since the regression equation was formulated on such a small sample (N=16), but may suggest variables worth investigating further.

RECOMMENDATIONS

Further investigation of the problem of attrition is obviously necessary, even essential at a time when enrollments in general at private colleges and universities such as Hofstra are declining and where the total student pool is stablizing or decreasing. This study has served to suggest some variables which may be worthwhile monitoring. For example, where problems begin to manifest themselves in the first semester, perhaps individualized intervention programs for such students should be implemented.

There are many other variables which have not been explored in the present study and which deserve further attention. One of the most obvious examples is the nature of residence of the withdrawn students, i.e. resident vs. commuter. Chikering (1974) has suggested that resident vs. commuter status is a significant variable in overall student experience, specifically pointing out that residential students become more fully involved in their educational experience. Residential status may therefore be a meaningful college environmental variable to study in relation to attrition.

McDermott (1975), based upon a review of the literature, has emphasized the importance of studying the college environment and its relative influence on the students who withdraw. What may prove to be a productive approach is to identify the types of students the College serves best. Armed with this information, recruitment programs and college programs can be geared accordingly. Essentially, this means an approach different from the one pursued in this report; rather than studying the students who withdraw, study the students who remain, attempt to identify the population the college is apparently serving well, and identify what the College is in fact doing to serve those students, and finally emphasize those positive factors in program development.

In a review of the Huber (1971) article, and with reference to schools with retention rates exceeding 80%, McDermott (1975) observed: "The administrators of these schools have available for their use objective descriptions of their institutional environments; their size, facilities, faculty, resources, student attitudes and needs, etc. are regularly assessed..... When advertising the school, the functions are publicized in an open and forthright fashion, neither underselling nor overselling the product." (p. 8) The point is that a more careful matching of students and college environment may be a major step toward alleviating the attrition problem.

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